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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,188	07/09/2003	Marion G. Waggoner	AD6881USNA	9677

23906 7590 10/07/2005

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WILMINGTON, DE 19805

EXAMINER

VJAYAKUMAR, KALLAMBELLA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,188

Applicant(s)

WAGGONER ET AL.

Examiner

Kallambella Vijayakumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claims 1-10 are currently pending with the application.

The examiner has considered the IDS filed 10/27/2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamura et al (US 5,373,046) in view of Hexel (Carbon fiber data sheet) and Reade (Carbon Black data sheet).

Normally, only one reference should be used in making a rejection under 35 U.S.C. 102. However, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to (MPEP 2131.01):

- (A) Prove the primary reference contains an "enabled disclosure;"
- (B) Explain the meaning of a term used in the primary reference; or
- (C) Show that a characteristic not disclosed in the reference is inherent.

The prior art teaches a resin compound for electronic parts comprising (i) 100 pts by wt of an thermoplastic engineering plastic such as LCP <Liquid Crystalline Polymer>; (ii) 3-150 pts by wt of a mixture comprising (a) 40-90 wt% polyethylene with a density not less than 0.92 g/cc, (b) 10-40 wt% carbon black, (c) not more than 20 wt% talc, based a+b+c; and (iii) 5-150 pts by wt of carbon fibers with a length of 0.03-60 mm (Col-1, Ln 46-67; Col-3, Ln 17-52; Col-5, Ln 47). The ratios of the components based on a density of 1.00 g/cc for the resins, and 1.77 g/cc for the carbon fiber and 2.26 g/cc for the carbon black fully encompass the ratio limitations in the claims. With regard to surface resistivity in claims

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9-10, prior art composition is identical to that by the applicants, and identical compositions have identical properties. All the limitations of the instant claims are met.

The reference is anticipatory.

2. Claims 1-2, 4-5, 7 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasa et al (JP 61-016942).

The prior art teaches an EM Shielding composition comprising 55-85 vol% polypropylene, 2-10 vol% carbon fiber and 5-43 vol% carbon black (Abstract, Page-3, Col-1, para-3). With regard to surface resistivity in claims 9-10, prior art composition is identical to that by the applicants, and identical compositions have identical properties. All the limitations of the instant claims are met.

The reference is anticipatory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the

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examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 3 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Sasa et al (JP 61-016942) in view of or Kitahata et al (US 6,037,400).

The disclosure by Sasa et al on EM shielding composition as set forth in rejection-2 under 35 USC 102(b) is herein incorporated.

The prior art is silent about the length of the carbon fibers used in the composition.

In the analogous art Kitahata teaches the use of carbon fibers with a length of 40 micron-3 mm in EM shielding compositions containing carbon black, ferrites and resins such as polyolefins, polyamides and silicones ((Abstract, Col-5, Ln 56-67; Col-9, Table-1).

It would have been obvious to a person of ordinary skill in the art to combine the prior art teachings to optionally use the carbon fibers of Kitahata et al as functional equivalents in the EM composition of Sasa with reasonable expectation of success, because the combined prior art teaching is suggestive of the claimed composition.

2. Claims 3, 6 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Sasa et al (JP 61-016942) in view of Okamura et al (US 5,373,046).

The disclosure by Sasa et al on EM shielding composition as set forth in rejection-2 under 35 USC 102(b) is herein incorporated.

The prior art is silent about the length of the carbon fibers in the composition, and fails to teach the composition containing LCP.

In the analogous art of thermoplastic compositions, Okamura et al teach the resin compound compositions containing carbon fibers with a length of 0.03-60 mm, antistatic agents, and engineering plastics such as LCP, wherein the addition of engineering plastics would impart strong mechanical properties (See Rejection-1 under 35 USC 102(b)).

It would have been obvious to a person of ordinary skill in the art to combine the prior art teachings to optionally use the carbon fibers of Okamura et al as functional equivalents in the EM composition of Sasa and/or optionally include LCP to benefit from strong mechanical properties with reasonable expectation of success, because the combined prior art teaching is suggestive of the claimed compositions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8-5.30 Mon-Thu, 8-4.30 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMV
September 29, 2005.


Mark Kopec
Primary Examiner